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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/580,495

05/30/2000

Alan Frank Graves

71493-750

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06/15/2005

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EXAMINER

TRAN, DZUNG D

ART UNIT

PAPER NUMBER

2638

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

UK

Office Action Summary	Application No.	Applicant(s)	
	09/580,495	GRAVES ET AL.	
	Examiner	Art Unit	
	Dzung D. Tran	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 25 April 2005.

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-59 is/are pending in the application.

4a) Of the above claim(s) 4-14, 17, 18, 25-57 and 59 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-3, 15, 16, 19-24 and 58 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

1. In view of the amendment and the Affidavit filed on December 1, 2004 the Final Office Action mailed on February 25, 2005 has been withdrawn because the prior art Turner et al. (U.S. Patent no. 6,449,068) have been overcome by the Affidavit. A new Office Action in response to the amendments filed on April 25, 2005 is as follows.

Specification

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 15, 16, 19-22 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. U.S. patent no. 6,559,984 in view of Terahara et al. U.S. patent no. 6,134,034.

Regarding claims 1, 15, 16, 19-22 and 58, Lee clearly discloses in figure 5, a optical path monitoring with an optical switch (520) providing individual signal paths between a plurality of input ports and a plurality of output ports, said switch having a plurality of wavelength division multiplexers 540 for combining sets of individual switched optical signals into multiplexed switched optical signals (see figure 5), the system comprising:

a plurality of optical couplers (same as splitters) figure 5C, element 536;
a plurality of optical variable attenuator 535 (same as VOIC) for insertion into respective ones of the individual signal paths and for individually controlling the intensity of optical signals present in said respective ones of the individual signal paths in accordance with respective intensity control signals; and

the feedback controller 538 (same as claimed equalizer) connected to the splitters 536 and to the optical variable attenuator 535, for producing an estimate of the optical power of each individual switched optical signal and generating the intensity control signals as a function of the estimates of optical power (col. 5, lines 37-51). Lee differs from claims 1, 15, 16, 20-22 and 58 of the present invention in that Lee does not specifically disclose the optical variable attenuator is controlled by a controller that connected to an output of a wavelength division multiplexer and to the optical variable attenuator (same as VOIC). Terahara in figure 13, discloses an optical power detector/controller 36 connected to an output of a wavelength division multiplexer 18 and to the optical variable attenuator (58-1, 58-2, ...58-m) (same as VOIC) for equalizing the power of each of plurality of wavelength (e.g., ch-1, ch-2, ..., ch-m). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to include the teaching of Terahara in the system of Lee. One of ordinary skill in the art would have been motivated to do this in order to adjust the power level of each optical channel based upon the detected power level of each plurality of attenuated optical signal so as to equalize the power in each of the plurality of optical channel.

4. Claims 2, 3, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. U.S. patent no. 6,559,984 in view of Terahara et al. U.S. patent no. 6,134,034 and further in view of Taylor et al. U.S. patent no. 6,049,413.

Regarding claims 2 and 23, Lee and Terahara do not disclose the equalizer comprises: for each of the optical splitters, a wavelength demultiplexer connected to an output of said splitter, for each wavelength demultiplexer, a plurality of optical receivers connected to said demultiplexer, for each optical receivers, a power estimator connected thereto and a common controller connected to each power estimator; said controller being adapted to read a power estimate from each power estimator and to generate said intensity control signals as a function thereof. Taylor in figure 12, discloses an optical system that include a circuit for power monitoring comprises: a wavelength demultiplexer (1208), for each wavelength demultiplexer, a plurality of optical receivers (1210-1 to 1210-n) connected to said demultiplexer; for each optical receivers, a power estimator (1212-1 to 1212-n) connected thereto and a common controller (1214) connected to each power estimator for controlling the intensity (for example, by controlling the amplifier 1206-1 to 1206-n). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to include the teaching of Taylor in the system of Lee and Terahara. One of ordinary skill in the art would have been motivated to do this since power monitoring is well known in the art for adjusting or controlling the signal intensity so that the received powers are substantially equal.

Regarding claims 3 and 24, Taylor further discloses the receivers 1006 coupled to filter 1104 for outputting a narrower bandwidth.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dzung Tran
06/06/2005